

Commonwealth of Kentucky
Division for Air Quality
PERMIT STATEMENT OF BASIS

FEDERALLY ENFORCEABLE CONDITIONAL MAJOR (DRAFT PERMIT) NO. F-05-037

DOW CORNING CORPORATION

ELIZABETHTOWN, KY

SEPTEMBER 21, 2006

RALPH GOSNEY, P.E., REVIEWER

SOURCE I.D. #: 021-093-00005

SOURCE A.I. #: 1658

ACTIVITY I.D. #: APE20040002

SOURCE DESCRIPTION:

Dow Corning Corporation produces various specifications of silicone adhesives and sealants, and the source falls under the SIC codes 2891 & 2822, silicon adhesive and sealants production. Equipment at the plant is organized in the permit according to the sundry processing areas at this facility, inclusive of the support areas such as plant heating.

The potential to emit (as defined in 401 KAR 52:001, Section 1 (56)) of PM₁₀ and VOC are greater than one hundred (100) tons per year. The potential to emit (as defined in 401 KAR 52:001, Section 1 (56)) of any single HAP is equal to or greater than ten (10) tons per year and the combination of HAPs is equal to or greater than twenty-five (25) tons per year. However, the source has requested voluntary permit emission limits of nine (9) tons per year (tpy) or less of a single hazardous air pollutant (HAP), and 22.5 tpy or less of combined HAPs. The source also requested a voluntary emission limit of 90 tpy or less of volatile organic compounds (VOC), particulate matter less than 10 microns (PM₁₀) and other criteria pollutants. Therefore, the source is subject to the provision of 401 KAR 52:030, *Federally enforceable permits for nonmajor sources*. As such, this source will not be a major source of HAP emissions, as defined in 40 CFR 63.2, and there are no *NESHAPs* (40 CFR 63 and 401 KAR 63) applicable to this source.

Dow Corning Corporation was issued previous permits that contained limitations on toxic emissions based on the version of 401 KAR 63:021 with an effective date of November 11, 1986. This regulation was revised effective January 19, 1999, and currently states that existing sources which were issued a permit pursuant to 401 KAR 50:035 with conditions based on the previous version of 401 KAR 63:021 shall continue to comply with those requirements unless the source can demonstrate that a condition is no longer necessary.

Through submittal of the renewal and other application information, which has resulted in an updated emission analysis, Dow has shown that the previous limits are "...no longer necessary to protect human health and the environment." [401 KAR 63:021, Section 1] This is due to the fact that the updated uncontrolled source-wide emissions of the toxics in question are already well below the previous limits (see the table, below). Carrying the limits over to this permit will not provide any

protection to human health or the environment, and, therefore, are no longer necessary. Additionally, removing these high allowables from the permit will prevent confusion and contradiction with the source-wide Conditional Major limits of 90 tons-per-year (tpy) of the criteria air pollutants and 9 tpy of any single HAP.

Pollutant	63:021 Allowable From Previous Permits (lb/hr)	Annual Emissions Based on Allowable (tpy)	Max. Uncontrolled Emissions based on Facility Maximum Rated Capacity (tpy)
Acetic Acid	156.9	687.2	29.84
Carbon Black	834.5	3,655.1	0.047
Chromium oxide	120.2	526.5	0.005
Dimethylformamide	185.7	813.4	11.11
Organic tin (as Sn)	0.64	2.8	0.075

This permit is for the renewal of the source's plant-wide Conditional Major operating permit.

COMMENTS:

1) Emission Units:

Emission Point(s)	Description	Control Equipment
A1	Product Packaging (Silicone Sealant Packaging) Installation Date: 1976-2003	Scrubber (Packaging Spray) Installation Date: 9/2000

a) Potential to Emit Calculations

Manufacturer specifications were used to determine the VOC and HAP emissions from the product packaging area. The methodology used to calculate VOC and HAP emissions are consistent with that approved by DAQ during initial Conditional Major permit review.

b) Applicable Regulations

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

c) Non-applicable Regulations

401 KAR 63:021, *Existing sources emitting toxic air pollutants*. The permittee has demonstrated that the previous limitations on toxic emissions based on the version of 401 KAR 63:021 with an effective date of November 11, 1986 are no longer necessary to protect human health and the environment, therefore this rule no longer applies.

2) Emission Units: Press Mixer Area

Emission Point(s)	Description	Control Equipment/Installation Date
B1	Horizontal Press Mixer (Horizontal Pot Mixer)- 600/ETM Polymer Unit (Static Mixing Unit) Installation Date: 5/1990 / 8/1996	HPM Dust Collector Installation Date: 3/1990
B2	Horizontal Press Mixer - 600 (Horizontal Pot Mixer) Installation Date: 5/1990	HPM Condenser Installation Date: 3/1990
B3	Horizontal Press Mixer - 600 (Horizontal Pot Mixer) – HPM Bag Dump Hopper #1 Installation Date: 11/1992	Dust Collector Installation Date: 12/1992
B4	Horizontal Press Mixer - 600 (Horizontal Pot Mixer) – HPM Bag Dump Hopper #2 Installation Date: 11/1992	Dust Collector Installation Date: 12/1992
B6	NGSP Process (Sealant Compounder) Installation Date: 11/1998	Condenser Installation Date: 11/1998
B7	NGSP Process (Sealant Compounder) Filler Hopper #1 Installation Date: 11/1998	Dust Collector Installation Date: 11/1998
B8	NGSP Process (Sealant Compounder) Filler Hopper #2 Installation Date: 11/1998	Dust Collector Installation Date: 11/1998
B9	NGSP Process (Sealant Compounder) Filler Hopper #3 Installation Date: 11/1998	Dust Collector Installation Date: 11/1998
BD	NGSP Process (Sealant Compounder) Silo #1 Installation Date: 7/1985	Dust Collector Installation Date: 2/1999
BH	Horizontal Press Mixer – 600 Installation Date: 5/1990	HPM Silica Dust Collector Installation Date: 6/1999
BI	NGSP Process Silo #2 Installation Date: 7/2000	Dust Collector Installation Date: 7/2000

a) Potential to Emit Calculations

Engineering estimates were used to calculate emissions from emission points B1, B3, and B4. Manufacturer specifications were used to determine emissions from emission points B7, B8, B9, BD, BH, and BI. The methodology used to calculate emissions is consistent with that approved by DAQ during initial Conditional Major permit review.

b) Applicable Regulations

401 KAR 59:010, *New process operations*

The press mixer area was installed after July 2, 1975, therefore the requirements of 401 KAR 59:010 apply to the processes in the press mixer area. Pursuant to 401 KAR 59:010, particulate emissions from each of emission points B1, B3, B4, B7, B8, B9, BD, BH and BI shall not exceed 2.34 lbs/hr. In addition, the visible emissions from each emission point in the press mixer area shall not be greater than 20 % opacity.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

c) Non-applicable Regulations

401 KAR 63:021, *Existing sources emitting toxic air pollutants*. The permittee has demonstrated that the previous limitations on toxic emissions based on the version of 401 KAR 63:021 with an effective date of November 11, 1986 are no longer necessary to protect human health and the environment, therefore this rule no longer applies.

3) Emission Units: Werner-Pfleiderer

Emission Point(s)	Description	Control Equipment/Installation Date
C1	Werner-Pfleiderer Process (Sealant Compounder) Installation Date: 7/1978	Filter Unit (Feed Hopper) Installation Date: 7/1978
C2	Werner-Pfleiderer Process (Sealant Compounder) Installation Date: 7/1978	Filter Units (2) – Installation Date: 7/1978 Scrubber (Buffalo) – Installation Date: 7/1980

a) Potential to Emit Calculations

Manufacturer specifications were used to determine emissions from the emissions point C1. Engineering estimates were used to calculate VOC and HAP emissions from emission point C2.

b) Applicable Regulations

401 KAR 59:010, *New process operations*

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

4) Emission Units: ET-1 Batch Area

EP(s)	Description	Control Equipment/Installation Date
F2	795 Devol Unit (Process Condensation Unit) Installation Date: 1/1981	Condenser Installation Date: 1/1981
F5	Finger Mixer #2 – Sealant Catalyzer Installation Date: 7/1964	None
FE	Ross Mixer #1, Ross Mixer #5 (Sealant Pot Mixers) Installation Date: 7/1964	Maternity Ward Filler Hopper Installations Date: 8/1996
FK	Ross Mixer #2 (Sealant Pot Mixer) Installation Date: 7/1964	Dust Collector Installation Date: 8/1996
F4		None
FA	Finger Mixer #6 – Sealant Catalyzer Installation Date: 9/1994	None
FL	Ross Mixer #3 (Sealant Pot Mixer) Installation Date: 7/1964	Dust Collector Installation Date: 8/1996
FJ	Meyers Mixer #1 (Sealant Pot Mixer) Installation Date: 7/1964	Dust Collector Installation Date: 8/1996
FP	Meyers Mixer #2 (Sealant Pot Mixer) Installation Date: 7/1964	Dust Collector Installation Date: 9/1995
FQ	Meyers Mixer #3 (Sealant Pot Mixer) Installation Date: 7/1964	Dust Collector Installation Date: 9/1997
FD	Ross Mixer #1, Ross Mixer #5 (Sealant Pot Mixers) Installation Date: 7/1964	Maternity Ward Dust Collector Installations Date: 10/1994
F7	Turello #2, Turello #4 (Sealant Pot Mixers) Installation Date: 7/1985, 7/1988	Mixer Filler Hopper Dust Collector Installation Date: 7/1975
F9	Turello #1 (Sealant Pot Mixer)	Mixer Filler Hopper Dust Collector Installation Date: 7/1985
FC	Installation Date: 7/1985	Dust Collector Installation Date: 6/2002
FF	Turello #2 (Sealant Pot Mixer) Installation Date: 7/1985	Dust Collector Installation Date: 10/1994
FG	Turello #4 (Sealant Pot Mixer) Installation Date: 7/1988	Dust Collector Installation Date; 7/1996
FH	Turello #3 (Sealant Pot Mixer) Installation Date: 7/1986	Dust Collector Installation Date: 8/1996
FM	Ross Mixer #4 (Sealant Pot Mixer) Installation Date: 7/1964	Dust Collector Installation Date: 8/1996

EP(s)	Description	Control Equipment/Installation Date
FN	Turello #5 (Sealant Pot Mixer) Installation Date: 1/1997	Dust Collector Installation Date: 1/1997
FT	Turello #2, Turello #4 (Sealant Pot Mixers) Installation Date: 7/1985, 7/1988	Silica Hopper Dust Collector Installation Date: 10/1997
FX		Bulk Bag Unloading System Dust Collector Installation Date: 2/2006

a) Potential to Emit Calculations

Material balance was used to determine the particulate emissions from emission points FT and FX. Engineering estimates were used to determine emissions from emission points FC, FE, FF, FG, FH, FJ, FK, FL, FM, FN, FP, and FQ. Manufacturer specifications were used to calculate emissions for emission points F2, F4, F5, F7, F9, and FD.

b) Applicable Regulations

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

401 KAR 59:010, *New process operations*

The ET-1 batch area was installed after July 2, 1975, therefore the requirements of 401 KAR 59:010 apply to the processes in the ET-1 batch area. Pursuant to 401 KAR 59:010, particulate emissions from the emission points shall not exceed the Allowable Rate Limit as calculated by the equation in 401 KAR 59:010, Section 3 (2).

c) Non-applicable Regulations

401 KAR 63:021, *Existing sources emitting toxic air pollutants*. The permittee has demonstrated that the previous limitations on toxic emissions based on the version of 401 KAR 63:021 with an effective date of November 11, 1986 are no longer necessary to protect human health and the environment, therefore this rule no longer applies.

5) Emission Units: CU/WP-OXIME

Emission Point(s)	Description	Control Equipment/Installation Date
F2	795 Devol Unit (Process Condensation Unit) Installation Date: 1/1981	Condenser Installation Date: 1/1981
F4	Plant Vacuum Installation Date: 1963	None
GA	Continuous Unit /WP-Oxime/WP-Oxime 2 Installation Date: 7/1975, 7/1982, 7/2005	Condenser Installation Date: 2/1997

G2	Continuous Unit Installation Date: 7/1975	Dust Collector Installation Date: 7/1975
G3	CU Local Exhaust Installation Date: 1975	None
G6	CU Local Exhaust #2 Installation Date: 6/2003	None
G7	WP-Oxime/WP-Oxime 2 Installation Date: 7/1982, 7/2005	Dust Collector Installation Date: 7/1975

a) Potential to Emit Calculations

Manufacturer specifications were used to determine the particulate emissions from emission points F4, GA, G2, and G7. Engineering estimates were used to determine emissions for points G3, and G6.

b) Applicable Regulations

401 KAR 59:010, *New Process Operations*

The CU/WP-Oxime was installed after July 2, 1975, therefore the requirements of 401 KAR 59:010 apply to the processes in the CU/WP-OXIME area. Pursuant to 401 KAR 59:010, emissions of particulate matter shall not exceed 4.62 lbs/hr and 5.08 lbs/hr from emission points G2 and G7, respectively. In addition, the visible emissions from emission points G2 and G7 shall not equal or be greater than 20 % opacity.

401 KAR 63:020, *Potentially Hazardous Matter or Toxic Substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

c) Non-applicable Regulations

401 KAR 63:021, *Existing Sources Emitting Toxic Air Pollutants*. The permittee has demonstrated that the previous limitations on toxic emissions based on the version of 401 KAR 63:021 with an effective date of November 11, 1986 are no longer necessary to protect human health and the environment, therefore this rule no longer applies.

6) Emission Units: ABM SYLGARD TANKS

Emission Point(s)	Description	Control Equipment/Installation Date
GA	Continuous Unit /WP-Oxime/WP-Oxime 2 Installation Date: 7/1975, 7/1982, 7/2005	Condenser Installation Date: 2/1997
H2	Automatic Batch Mixer Installation Date: 7/1964	ABM Filler Hopper Dust Collector Installation Date: 7/1979
H7	Automatic Batch Mixer (Automatic Sealant Pot Mixer) Installation Date: 7/1964	ABM Powder Station Dust Collector Installation Date: 4/2006

a) Potential to Emit Calculations

Manufacturer specifications were used to determine emissions from the emission point GA and H2. Engineering estimates were used to calculate emissions from emission point H7.

b) Applicable Regulations

401 KAR 59:010, *New process operations*

The ABM Sylgard Tanks area was installed after July 2, 1975, therefore the requirements of 401 KAR 59:010 apply to the ABM Sylgard Tanks area. Pursuant to 401 KAR 59:010, emissions of particulate matter shall not exceed 3.59 lb/hr from emission point H2. In addition, the visible emissions from emission point H2 shall not equal or be greater than 20 % opacity.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

7) Emission Units: TREATED SILICA MFG. (TUMBLER)

Emission Point(s)	Description	Control Equipment/Installation Date
J1	Tumbler (Treated Filler Mixer) Treated Silica Silo Installation Date: 7/1975	Dust Collector Installation Date: 12/1975
J2	Tumbler (Treated Filler Mixer) Installation Date: 7/1973	Dust Collector Installation Date: 7/1973
J4	Tumbler (Treated Filler Mixer) Installation Date: 7/1973	Dust Collector Installation Date: 7/1986

a) Potential to Emit Calculations

Manufacturer specifications were used to determine the particulate emissions from emission points J1, J2 and J4.

b) Applicable Regulations

401 KAR 59:010, *New process operations*

The treated silica mfg. (tumbler) area was installed after July 2, 1975, therefore the requirements of 401 KAR 59:010 apply to the treated silica mfg. (tumbler) area. Pursuant to 401 KAR 59:010, emissions of particulate matter shall not exceed 2.34 lb/hr from each of emission points J1, J2, and J4. In addition, the visible emissions from each of emission points J1, J2, and J4 shall not equal or be greater than 20 % opacity.

8) Emission Units: ROOF COATING AREA

Emission Point(s)	Process ID	Control Equipment/Installation Date
K1	Roof Coating Room Local Exhaust Installation Date: 1973	None
K2	Roof Coating Room Fugitives Installation Date: 1982	None
K3	Meyers Mixer #4 (Sealant Pot Mixer) Installation Date: 10/1996	Roofcoating Room Dust Collector Installation Date: 1/1997

a) Potential to Emit Calculations

Manufacturer specifications were used to determine the particulate emissions from emission point K2. Engineering estimates were used to determine emissions from emission points K1 and K3.

b) Applicable Regulations

401 KAR 59:010, *New process operations*

The roof coating area was installed after July 2, 1975, therefore the requirements of 401 KAR 59:010 apply to the roof coating area. Pursuant to 401 KAR 59:010, emissions of particulate matter shall not exceed 2.34 lb/hr from emission point K3. In addition, the visible emissions from emission point K3 shall not equal or be greater than 20 % opacity.

9) Emission Units: BULK FILLER STORAGE (SILOS)

Emission Point(s)	Process ID	Process Description
L1	Silos 1, 2, and 3 (Filler Storage Silos) Installation Date: 7/1978, 3/2000	Dust Collector Installation Date: 12/1975
L2	Silo 4 (Filler Storage Silo) Installation Date: 7/1985	Dust Collector Installation Date: 7/1985
L3	Silo 5 (Filler Storage Silo) Installation Date: 7/1985	Dust Collector Installation Date: 11/1986
L4	Silo 6 (Filler Storage Silo) Installation Date: 7/1982	Dust Collector Installation Date: 4/1982
L5	Silo 7 (Filler Storage Silo) Installation Date: 7/1979	Dust Collector Installation Date: 4/1979
L6	Silo 8 (Filler Storage Silo) Installation Date: 7/1979	Dust Collector Installation Date: 4/1979

a) Potential to Emit Calculations

Engineering estimates were used to determine the particulate emissions from emission points L1 through L6.

b) Applicable Regulations

401 KAR 59:010, *New process operations*

The bulk filler storage (silos) was installed after July 2, 1975, therefore the requirements of 401 KAR 59:010 apply to the bulk filler storage (silos). Pursuant to 401 KAR 59:010, total emissions of particulate matter shall not exceed 14.97 lb/hr from emission points L1 through L6. In addition, the visible emissions from each emission point (L1, L2, L3, L4, L5, L6) shall not equal or exceed 20 %.

10) Emission Units: HEATING OPERATIONS

Emission Point(s)	Process ID	Description
N1*	Natural Gas Boiler #1 Installation Date: 1963	8.4 mmBTU/hr boiler
N2*	Natural Gas Boiler #2 Installation Date: 1963	8.4 mmBTU/hr boiler
N4	Syltherm Heater Firing Natural Gas Fuel Installation Date: 1991	2.5 mmBTU/hr oil heater
N7	Syltherm Heater #2 Firing Natural Gas Fuel Installation Date: 1998	2.5 mmBTU/hr oil heater
N9	Natural Gas Boiler #4 Installation Date: 2002	8.4 mmBTU/hr boiler
NA	Natural Gas Boiler #5 Installation Date: 2002	8.4 mmBTU/hr boiler
NB	Natural Gas Boiler #6 Installation Date: 2002	4.2 mmBTU/hr boiler

***Boilers (N1 & N2) will be used as back ups and are existing boilers.**

a) Potential to Emit Calculations

AP-42, Chapter 1.4, Tables 1.4-1, -2 and -3 were used to determine the natural gas combustion emissions from the emission points N1, N2, N9, NA and NB. AP-42, Chapter 1.3, Tables 1.3-1, -2 and -3 were used to determine the #2 fuel oil combustion emissions from the emission units N1, N2, N4, N7, N9, NA and NB.

b) Applicable Regulations

- i. 401 KAR 59:015, *New indirect heat exchangers (N4, N7, N9, NA, NB); and*
- ii. 401 KAR 61:015, *Existing indirect heat exchangers (N1, N2).*

Pursuant to 401 KAR 59:010 and 401 KAR 61:015, emissions of PM/PM₁₀ and SO₂ shall not exceed the following limits.

Emission Point	PM/PM ₁₀ Allowable (Lb/mmBTU)	SO ₂ Allowable (Lb/mmBTU)
N1 and N2	0.75	4.6
N4, N7, N9, NA, and NB	0.4	1.65

In addition, pursuant to 401 KAR 59:015, opacity of visible emissions from emission points N4, N7, N9, NA, and NB shall not exceed 20% and the opacity of visible emissions from emission points N1 or N2, shall not exceed 40%.

- iii. 401 KAR 63:002, Section 2(5) - 40 C.F.R. Part 63, Subpart DDDDD, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers*, incorporated by reference.

The requirements of 40 CFR 63, Subpart DDDDD, are not included in the permit for the emission points, identified as N1, N2, N4, N7, N9, NA and NB. While these units are considered as existing small gaseous fuel units as defined by 40 CFR 63.7575 (i.e., heat input rating for each unit is less than or equal to 10 million Btu per hour), the source has limited combined HAP emissions to below 25 tons per year and any individual HAP emission to below 10 tons per year. Therefore, this is an area source of HAP emissions, as defined at 40 CFR 63.2, and Subpart DDDDD is not applicable.

11) Emission Units: MISCELLANEOUS CLEANING OPERATIONS

Emission Point(s)	Description	Control Equipment/Installation Date
P1	Large Beringer Oven, Small Beringer Oven (Parts Cleaning Ovens) Installation Date: 7/1980	Scrubber Installation Date: 7/1985
P2	Small Beringer Oven, Small Beringer Oven (Parts Cleaning Ovens) Installation Date: 7/1985	Dust Collector Installation Date: 7/1989

a) Potential to Emit Calculations

Manufacturer specifications were used to calculate VOC and HAP emissions from emission point P1. Engineering estimates were used to determine the particulate emissions from the emission point P2.

b) Applicable Regulations

401 KAR 59:010, *New process operations*

The miscellaneous cleaning operations were installed after July 2, 1975, therefore the requirements of 401 KAR 59:010 apply to the miscellaneous cleaning operations. Pursuant to 401 KAR 59:010, particulate emissions from emission point P2 shall not

exceed 2.34 lb/hr. In addition, the visible emissions from P2 shall not equal or be greater than 20 % opacity.

c) Non-applicable Regulations

401 KAR 63:021, *Existing sources emitting toxic air pollutants*. The permittee has demonstrated that the previous limitations on toxic emissions based on the version of 401 KAR 63:021 with an effective date of November 11, 1986 are no longer necessary to protect human health and the environment, therefore this rule no longer applies.

12) Emission Units: LATEX PROCESS

Emission Point(s)	Process ID	Process Description
S1	Latex Sealant Turello #6 Bag Dump Hopper (Sealant Pot Mixer) Installation Date: 1/2000	Dust Collector Installation Date: 1/2000
S2	Latex Sealant Turello #6 Filler Hopper (Sealant Pot Mixer) Installation Date: 1/2000	Dust Collector Installation Date: 1/2000
S3	Turello #6 Vacuum Installation Date: 1/2000	None
S5	Latex Sealant Turello #6 (Sealant Pot Mixer) Installation Date: 1/2000	Dust Collector Installation Date: 1/1999
S6	Latex Sealant Turello #7 Filler Hopper (Sealant Pot Mixer) Installation Date: 1/2000	Dust Collector Installation Date: 1/2000
S7	Turello #7 Vacuum Installation Date: 1/2000	None
S8	Latex Sealant Turello #7 (Sealant Pot Mixer) Installation Date: 1/2000	Dust Collector Installation Date: 1/1999
S9	Latex Sealant Turello #7 (Sealant Pot Mixer) Filter Dump Hopper Installation Date: 1/2000	Dust Collector
SA	Pot Cleaner Exhaust Installation Date: 1/2000	None

a) Potential to Emit Calculations

Engineering estimates were used to calculate VOC and HAP emissions from emission points S1, S3, S7, and SA. Manufacturer specifications were used to determine the particulate emissions from the emission points S2, S5, S6, and S8.

b) Applicable Regulations

401 KAR 59:010, New process operations

401 KAR 52:030, Federally enforceable permits for nonmajor sources, applies to sources that accept permit conditions that are legally and practically enforceable to limit their potential to emit (PTE) below the major source thresholds that would make them subject to 401 KAR 52:020.

401 KAR 63:020, *Potentially hazardous matter or toxic substances*, applies to each affected facility which emits or may emit potentially hazardous matter or toxic substances.

- 13) The requirements of 40 CFR 64, *Compliance Assurance Monitoring*, are not included in the permit for any emission unit at this source because this source is being approved to operate under a Conditional Major permit and, pursuant to 40 CFR 64.2(a), the requirements of this rule are applicable only to a source required to obtain a Title V (Part 70 or 71) permit.

14) Insignificant Activities

a) Applicable Regulations

<u>Description</u>	<u>Emission Pt.</u>	<u>Generally Applicable Regulation</u>	<u>Installation Date</u>
1. NGSP Process Exhaust	BA	None	1999
2. NGSP Drum Off Exhaust	BB	None	1999
3. NGSP Additive Tanks	BC	401 KAR 63:020	1999
4. NGSP Fugitive Emissions	BE	401 KAR 63:010	1999
5. NGSP Additive Room Exhaust	BJ	401 KAR 63:020	2004
6. T-8116 Tank	BK	None	2006
7. HPM Area Fugitives	B5	401 KAR 63:010	1990
8. WP Polymer Tank	C4	None	1978
9. WP Area Fugitives	C5	401 KAR 63:010	1978
10. WP Geyer Drum Exhaust	C6	None	2003
11. WP Mechanical Room Exhaust	C7	None	2003
12. T2-5103 Tank	C8	None	2003
13. T-1400	D1	None	1980
14. T-2100	D2	None	1984
15. T-2107	D3	None	1985
16. T-657, T658	D4	None	1989
17. T-1033, T-1034, T-1036	D5	None	1969
18. T-1032, T-1422, T-1433, T-650	D6	None	1970,1980,1989
19. KP-2 Product Tanks (11)	D7	None	1966
20. KP-1 Product Tanks (11)	D8	None	1963,1976
21. T-104	D9	None	1963

22.	T-1301	DA	None	1978
23.	T-1302, T-1303	DB	None	1978
24.	T-1304, T-1351	DC	401 KAR 63:020	1978
25.	T-107, T-108	DD	None	1963
26.	T-3829	DE	None	2000
27.	KP-1 Vacuum System	E1	None	1985
28.	KP-2 Vacuum System	E2	None	1980
29.	KP-3 Vacuum System	E3	None	1990
30.	T-608	E4	None	1968
31.	T-629	E5	None	1997
32.	T-648	E6	None	1985
33.	T-649	E7	None	2003
34.	T-916	E8	None	1968
35.	T-1001	E9	None	1980
36.	T-1022	EA	None	1980
37.	ET-8 Primer Room Exhaust	F1	401 KAR 63:020	1991
38.	Pot Cleaning/Devol Area Vent	F3	401 KAR 63:020	1981
39.	8-0084 Tank	F6	None	1978
40.	Manufacturing Oven	F8	401 KAR 63:020	1963
41.	Devol Area Fugitives	FR	401 KAR 63:010	1981
42.	Batch Area Fugitives	FS	401 KAR 63:010	1975
43.	T-3 PB Fluid Tank	FU	None	2001
44.	T-8070 Cataslyst Tank	FV	401 KAR 63:020	2002
45.	T-8071 Tank	FW	None	2002
46.	WP-Oxime Exhaust	G1	None	1982
47.	CU/WP-Oxime Fugitives	G4	401 KAR 63:010	1982
48.	Sylgard Tank	H1	None	1973
49.	ABM Catalyst Tank	H3	None	1979
50.	Sealant Rework Local Exhaust	H4	None	1996
51.	ABM Ross Vent	H5	401 KAR 63:020	2006
52.	ABM Drum Scales Vent	H6	401 KAR 63:020	2006
53.	Tumbler Dryer Exhaust	J3	None	1973
54.	Tumbler Z-6079 Tank	J5	None	2002
55.	Roofcoating Tank Exhaust	K4	None	2003
56.	Lab Oven Vent	M1	401 KAR 63:020	1963
57.	Lab Small Equipment Vent	M2	401 KAR 63:020	1963
58.	Lab QA Oven Vent	M3	401 KAR 63:020	1963
59.	Lab Hoods (8)	M4	401 KAR 63:020	1963
60.	Glycol Heater #1	N5	None	1984
61.	Glycol Heater #2	N6	None	1994
62.	ET-1 Parts Cleaners	P3	None	1991
63.	Parts Cleaners (5)	P4	None	1991
64.	Fugitive Dust (Unpaved Roads)	R1	401 KAR 63:010	1963

65. Latex Sealant Local Exhaust	S4	401 KAR 63:020	2000
66. Latex Blend Tank	SB	None	2002

b) Potential to Emit Calculations

Engineering estimates were used to calculate emissions from emission points BA, BB, BJ, B5, C6, C7, F1, F3, G1, H4, H5, H6, M2, M4, P3, P4, and S4. AP-42 emission factors were used to calculate emissions from emission point BK. Manufacturer specifications were used to calculate the emissions from emission points BC, BE, C5, C8, D1, D2, D3, D4, D5, D6, D7, D8, D9, DA, DB, DC, DD, DE, E1, E2, E3, E4, E5, E6, E7, E8, E9, EA, F6, F8, FR, FS, FU, FV, FW, G1, G4, H1, H3, J3, J5, K4, M1, M3, R1, and SB.

c) Non-applicable Regulations

- i. Pursuant to 401 KAR 59:050, New Storage Vessels for Petroleum Liquids, this rule applies to each storage vessel for petroleum liquids with a storage capacity of greater than 2,195 liters (580 gallons) that commenced before the classification date of July 24, 1984, and which is located in a county or portion of a county designated ozone nonattainment under 401 KAR 51:101, except marginal nonattainment. The vessels listed under insignificant activities do not store petroleum liquids.
- ii. Pursuant to 40 CFR 63.460 (a), the requirements of 40 CFR 63, Subpart T, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning*, apply to each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than 5 percent by weight, as a cleaning and/or drying agent. The parts washers, as insignificant activities, do not use any of the solvents mentioned above in a total concentration greater than five (5) percent and the source is an area source for HAP emissions. Therefore, the parts washers are not subject to the requirements of 40 CFR 63, Subpart T.

- 15) The changes indicated below have been made at the source during the prior five (5) year period and are incorporated into this Conditional Major renewal permit. There have been no changes to the source emissions caps or the Conditional Major status for this facility due to these changes.

- a) Addition of emission point BI-NGSP Silo #2. (Division notification on August 21, 2000: Log # G772)
- b) Upgraded the scrubber in product packaging area. The water flow rate has been changed from 7.5 gallons per minute to 150 gallons per minute. (Division approved this substitution as an Administrative Amendment on September 8, 2000: Log #53170)
- c) Added boilers N9, NA and NB to the Conditional Major permit. (Revision 1, issued on May 17, 2002: Log # 54664)

- d) Removed EP C3 from the Werner-Pfleiderer area. (Division notified on May 17, 2002 and September 20, 2002: Log Nos. 54644, 55015 regarding the removal of EP C3 and C2, respectively; Division notified during this review on April 10, 2006 that EP C2 was not removed and is still in operation.)
- e) Removal of boiler #3 (EP N3). (Division notified on June 23, 2003)
- f) Addition of new WP-Oxime Compounder (identified as WP-Oxime Compounder 2; shares same emission points associated with existing WP-Oxime Compounder EP G1, G4, G7). (minor revision, installed on May 31, 2005; no change in emission caps and no significant change to existing monitoring, reporting or record keeping requirements)
- g) Addition of a Bulk Bag Unloading System (EP FX), removal of T-7 Bag Dump Hopper (EP S9), renaming of EP F7 (T-3 Filler Hopper) to T-2, T4 Filler Hopper and addition of tank in HPM/NGSP area (EP BK). (Request to KDAQ in letter dated February 15, 2006)
- h) Addition of EP H5 (ABM Ross Catalyst Mixer Exhaust), H6 (AMB Drum Scale Exhaust), H7 (ABM Power Staging Dust Collector), and Finger Mixer #2b in Batch Area. (Request to KDAQ in letter dated March 14, 2006).
- i) Emission Points BF, BG, and FB were removed from service. Emission Point FI was never constructed. (Division notified during this review on May 03, 2006)

EMISSION AND OPERATING CAPS DESCRIPTION:

Dow Corning Corporation has requested voluntary permit emission limits of 9 tons per year (tpy) or less of a single hazardous air pollutant (HAP) and 22.5 tpy or less of combined HAPs. The source also requested a voluntary emission limit of 90 tpy or less of volatile organic compounds (VOC), particulate matter less than 10 microns (PM₁₀) and other criteria pollutants. Compliance with these permit limits shall make the requirements of 401 KAR 52:020, Title V permits, not applicable to this source. Compliance with these limits shall also make the requirements of 40 CFR Part 63 for major sources of HAP emissions, as incorporated by reference at 401 KAR 63:002, not applicable to this source.

PERIODIC MONITORING:

Please refer to permit F-05-037 for specific monitoring requirements. Requirements include: monitoring the control equipment; operation of the equipment; and source-wide emissions of criteria and hazardous air pollutants.

OPERATIONAL FLEXIBILITY:

None

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with

applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.